

# Sinusoidal Word Problems

p350-353

q6,7,14,

p357 & 358

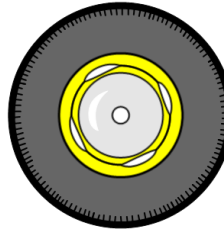
q 4, 6,8 & 9

p375

q15

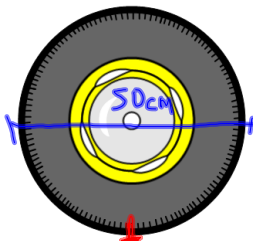
Nov 30-8:11 AM

14. The diameter of a car's tire is 50 cm. While the car is being driven, the tire picks up a nail.
- How far does the tire travel before the nail returns to the ground for the first time?
  - Model the height of the nail above the ground in terms of the distance the car has travelled since the tire picked up the nail.
  - How high above the ground will the nail be after the car has travelled 235 cm?
  - The nail reaches a height of 10 cm above the ground for the third time. How far has the car travelled?



Nov 22-8:22 AM

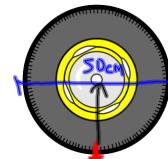
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Nov 22-8:22 AM

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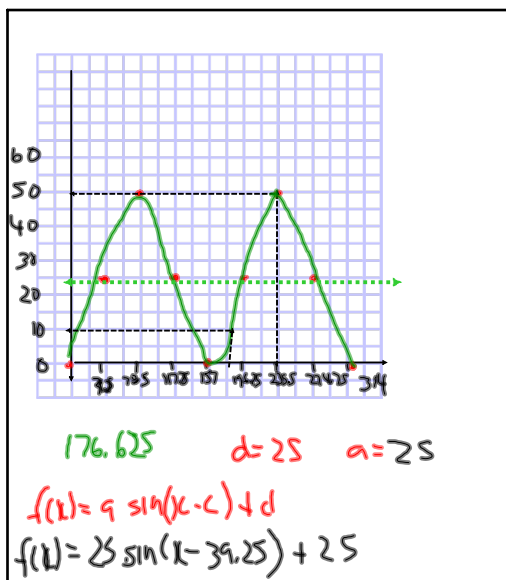
$$C = \pi d$$

$$= 3.14 (50)$$

$$= 157$$

0	0	0	0
90	39.25	25	25
180	78.5	50	50
270	117.75	25	25
360	157	0	0

Nov 22-8:22 AM



Nov 22-8:39 AM